MULTI-LAYER AND USER-CONFIGURABLE MICRO- PRINTED CIRCUIT BOARD

Abstract of the Disclosure

A multi-layer micro-printed circuit board (PCB) is disclosed, which defines a magnetic component, such as a transformer, using planar technology. Instead of using the traditional twelve-layer PCB incorporating both a primary and a secondary winding, this invention stacks multiple PCBs, each having four or six layers and each including a single winding (either the primary or the secondary). The PCBs are stacked in an offset arrangement such that the pins penetrating the PCB or PCBs including the primary winding or windings do not penetrate the PCB or PCBs including the secondary winding or windings. Additionally, this offset arrangement prevents the pins penetrating the secondary PCBs from penetrating the primary PCBs in the same manner. This offset configuration thereby avoids significant flashover problems associated with current planar components. Moreover, the invention describes an arrangement whereby a jumper or other connection can be used to connect the windings in a series or in a parallel configuration allowing the user to configure the component according to user-required parameters.

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